Santa Cruz County ARES
Membership Meeting Minutes

Wednesday, April 16, 2025 at 1900;

In-person at the Emergency Operations Center, 5200 Soquel Avenue

Welcome — Roberta AJ6KN (AJ6KN@slvares.org)

Introduction of New Members — Bob KO6XX (bob@slvares.org)

-

Upcoming Activities — All

- POTA –May 3rd 10AM, possibly at Sunset Beach
- Big Sur International Marathon, April 27th
- Strawberry Fields Forever Bike Ride – May 18th, slots remain available.

Ham Radio Neighborhood Experience — Jerry, W6OJE

- See attached powerpoint

Review of website for determining propagation to repeater towers — Jerry, W6OJE

- See attached powerpoint
- Demonstration of how to identify propagation from a location or possibly of reaching a location
- https://www.ve2dbe.com/english1.html

Emergency Communications Experiences — Mike, K9VF

- See attached powerpoint

Voice of the members

- Random topics & questions from the membership

Net Control Recruitment — Roberta AJ6KN (AJ6KN@slvares.org)

NET Date	ARES Group	Repeater NET Controller
Thurs, Apr 17	Coastal	Mike K9VF
Wed, Apr 23	SLV	JoMarie KM6URE
Thurs, May 1	Coastal	Lisa, KN6IAB
Wed, May 14	SLV	Mike K9VF
Thurs, May 15	Coastal	Adhoc
Wed, May 28	SLV	Ed, N6EMA

Next meeting May 21 at 1900

Snapshots of My Palo Alto BPC/NPC Experience

Jerry Lucha (W6OJE) former Neighborhood Preparedness Coordinator for Adobe Meadow Neighborhood

Palo Alto, CA

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Overview of the Program

- The Palo Alto Neighborhood Assn in Conjunction with the City of Palo Alto Office of Emergency Preparedness Divided the City into "Neighborhoods"
- We had about 40 Neighborhoods
- Each Neighborhood Contained about a Dozen "Blocks" which would be a street or two
- Each Neighborhood assigned an FRS Channel and PL code
- Each had a trained Neighborhood Prep Coordinator (NPC) who would recruit and train Block Prep Coordinators (BPC)

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Overview (Cont.)

- CERTS were a separate Organization (sort of)
  - More Training
  - BPC/NPC was the overall ommunications Network
- NPCs provided with MURS Radios for the Citywide MURS Net which communicated with the city EOC or alt EOC
- BPCs and Certs provided with FRS Radios for communication in the Neighborhood Net controlled by NPC and among themselves (CERTS)
- CERTS would be deployed to incidents and report to NPC upon arrival and for coordination

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Palo Alto Neighborhoods Block Preparedness Coordinator Program

The (PAN) Palo Alto Neighborhoods community group in partnership with the City of Palo Alto formed the Block Preparedness Coordinator (BPC) Program to ensure that residents, businesses, and other groups can participate with the City in disaster preparation, response, and recovery. The Program trains volunteers to staff BPC positions for each block and Neighborhood Preparedness Coordinators (NPC) for each neighborhood (including businesses/districts or other groups).

When the “Big One” strikes and phones, electricity, and other infrastructure are impaired, the BPC Program enhances community resilience by 1) prior preparation of the community, 2) establishing emergency radio communications links, and 3) empowering residents to assist emergency response by serving as “eyes and ears.”
In a disaster, BPCs and NPCs will stay in their block/neighborhood and report critical incidents to the City.

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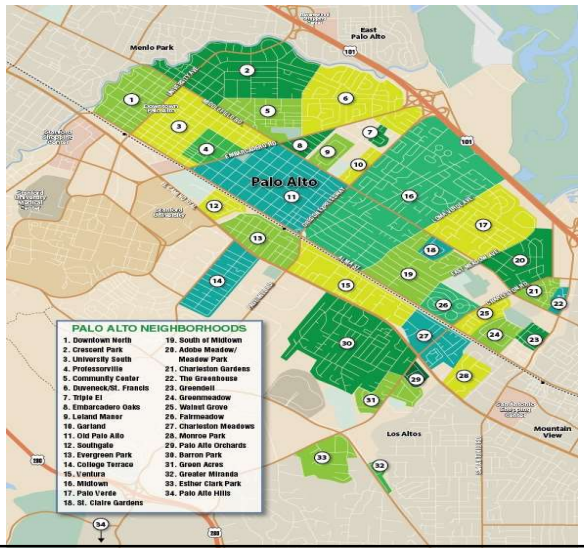
Palo Alto Neighborhoods



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Neighborhood Preparedness Coordinators

NEIGHBORHOOD	FRS Chan	FRS Tone	NPC	EMAIL	CELL No.	SMS	HOME No.
Adobe Meadow	14	27	Gerald Lucha	gerald.lucha@sri.com	424-9660	Y	494-1178
Altaire/Kehillah/Moldaw	11	20	Cliff Nakayama	csln75@gmail.com	650-255-5235	Y	
Barron Park 1 (co- NPC)	8	10	Marianne Strickfaden	marianne_str@hotmail.com	847-7578		493-4551
Barron Park 1 (co- NPC)	8	10	Jeff Dean	jadient@gmail.com		Y	
Barron Park 2	10		Daniel Lilienstein	dlilienstein@gmail.com	269-9614	Y	
Barron Park 3	14	10	-vacant-	reports to Barron Park 4, for now			
Barron Park 4 (back-up NPC)	14	10	Maury Green	mauryg3@comcast.net	704-5900		493-5914
Castilleja School	20	30	-vacant-	reports to University South, for now			
Channing House	13	5	-vacant-	reports to University South, for now			
Charleston Gardens,Village,Greenhouse	12	31	Scott Fullam	scott fullam <sfullam@gmail.com>	(408) 647 5466	Y	
Charleston Meadows	14	31	Thomas Krafft	thomas.krafft@gmail.com	408) 476-9617	Y	561-3918
College Terrace	8	13	Alexandra Groetsema	alexandrag2254@gmail.com	380-6880	Y	857-0851
Community Center	10	23	Peter Allen	Pma94301@comcast.net	255-6929	Y	853-0272
Crescent Park	10	23	-vacant-	reports to Community Ctr, for now			
Downtown North	10	32	Geoff Ball	ghball@aol.com	279-9461		325-2967
Downtown North (back-up NPC)	10	32	Bern Beecham	bern@beecham.org	248-0903		328-3836
Duveneck/St Francis (North & South)	5	14	Mike Rockwell	mjrockwellus@yahoo.com	415)509-4912	Y	213-8942
Esther Clark Park	10	27	-vacant-	reports to Miranda, for now			
Evergreen Park	10	24	-vacant-	-			
Fairmeadow	12	3	-vacant-				
Green Acres I	14	10	-vacant-	reports to Barron Park 4, for now			
Green Acres II	10	10	Jim Colton	james.colton@sri.com	464-1775	Y	
Greendell	4	14	Srini Sankaran	npc@greendell.org	520-5907	Y	494-7685
Greenmeadow,Walnut Grove	7	0	Scott Schroeder	schroederius2@gmail.com	269-2292	Y	493-3221
Greenmeadow (co-NPC)	7	0	Walt Hays	wkhays@igc.org	424-9633		493-0788
Leland Manor	6	34	Kathleen Foley Hughes	Kathleen.hughes@sbcglobal.net	269-5505		323-2851
Leland Manor (back-up NPC)	6	34	Esther Nigenda	enigenda@yahoo.com	996-8315		322-4971
Los Trancos Woods, Vista Verde	7	11	-vacant-	reports to Woodside Fire			

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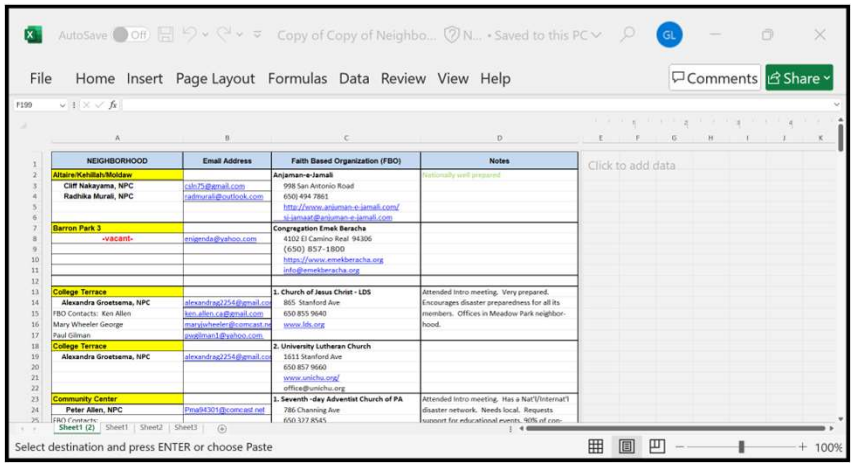
NPC Contact Information



NEIGHBORHOOD	Email Address	Faith Based Organization (FBO)	Notes
Altaire/Kehillah/Moldaw		**Anjaman-e-Jamali**	Nationally well prepared
Cliff Nakayama, NPC	csln75@gmail.com	998 San Antonio Road	
Radhika Murali, NPC	radmurali@outlook.com	(650) 494 7861	
		http://www.anjaman-e-jamali.com/	
		sc.jamaat@anjuman-e-jamali.com	
Barron Park 3		**Congregation Emek Beracha**	
-vacant-	enigenda@yahoo.com	4102 El Camino Real 94306	
		(650) 857-1800	
		https://www.emekberacha.org	
		info@emekberacha.org	
College Terrace		**1. Church of Jesus Christ - LDS**	Attended Intro meeting. Very prepared. Encourages disaster preparedness for all its members. Offices in Meadow Park neighborhood.
Alexandra Groetsema, NPC	alexandrag2254@gmail.co	865 Stanford Ave	
FBO Contacts: Ken Allen	ken.allen.ca@gmail.com	650 855 9640	
Mary Wheeler George	maryjwheeler@comcast.ne	www.lds.org	
Paul Gilman	pogilman1@yahoo.com		
College Terrace		**2. University Lutheran Church**	
Alexandra Groetsema, NPC	alexandrag2254@gmail.co	1611 Stanford Ave	
		650 857 9660	
		www.unichu.org/	
		office@unichu.org	
Community Center		**1. Seventh -day Adventist Church of PA**	Attended Intro meeting. Has a Nat'l/Internat'l disaster network. Needs local. Requests support for educational events. 90% of con-
Peter Allen, NPC	Pinp94301@comcast.net	786 Channing Ave	
FBO Contacts:		650 327 8545	

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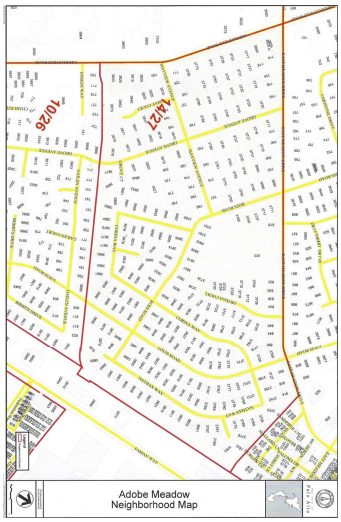
Adobe Meadow Map



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Adobe Meadow BPC's and FRS Callsigns

Sharon Elliot	493-3596		2	3712 Ortega Ct.	sharonelliot@stanfordalumni.org
Chitra Chadhokar	493-2729	283-7891	3	3827 Corina Way	cchadhokar@hotmail.com
Jim Crawford	856-3695	482-9885	4	3638 Louis Rd.	kayedc@aol.com
Bob Marinaro	855-9539		5	3892 Corina Way	rmarinaro@mac.com
Teddie Guenzer	813-0866		6	3852 Grove Ave.	tjg@guenzer.com
Glenn Affleck	494-1756		7	3830 May Ct.	investwglenn@earthlink.net
Robin Holbrook	856-7893	533-3431	8	3797 Nathan Way	reh@stanford.edu,
Jerry Lucha	494-1178	424-9660*	9	3749 Ross Rd.	gerald.lucha@SRI.com
MaryAnn Norton	856-1829		9a	3696 Ross Rd	manorton@ix.netcom.com
Chip Wytmar	320-8996	248-6607	10	749 Mayview Ave.	chip@wytmar.com
Ceci Kettendorf	493-0804		11	3719 Grove Ave.	cecihome@gmail.com
Jackie Fitzgibbons	494-0688		12	3815 Ross Rd.	jackieif@comcast.net
Bear Bauman	493-7372	380-6366	14	3721 Middlefield	richardbauman@att.net
Teresa Stephens 704-3398 H 320-8617 David Stephens 303-5538			15	3757 Corena Way	teresab@stanford.edu
Tony/Joan Teo	493-6983		16	3766 Nathan Way	teotribe@yahoo.com
Francine Fehl	868-0711		-	736 E.Meadow Dr	Francine@whiteandlee.com
Linda & Bob Campbell	857-9054			830 E. Meadow Dr.	rdcampbell@comcast.net

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NPC Radio Activity During Exercises

- Activate the Neighborhood FRS Net
- Roll Call and Periodic Announcements of Status to FRS Net
- Check-in to City MURS net during their Roll Calls
- Coordinate with CERTs as Required

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Example of Random Training Incident

- This is a full-scale exercise to test the Emergency Services Volunteers' response and recovery capabilities in the event of a disaster and/or emergency.
-

- City
- -sponsored
- Drill

- For more information or if you have questions, please contact Palo Alto's Office of Emergency Services.
- (650) 617-3197 or oes@cityofpaloalto.org
-
- Information about the Emergency Services Volunteer (ESV) Program can be viewed at www.cityofpaloalto.org/emergencyvolunteers

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Example of Training Incident (back)

- Neighbor's teenage daughter is scared and hysterical hanging onto the second story ledge of her house.
- You calmly ask for her name.
- She tells you but continues crying and screaming. You firmly but calmly say her name repeatedly until she looks at you and stops the screaming.
- Ask her if she knows where the fire is. Then ask if anyone else is in the house. She replies she is home alone.
- Instruct SUVs to find a ladder or mattress. Keeping the teenagers eyes on you.
- Record on your damage assessment form and report.

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Thoughts re Analogy to Santa Cruz County Geography

- “Blocks” here are usually much larger than in Palo Alto
- Probably need MURS Nets for most “Neighborhoods” but they could be FRS nets within city street situations
- Licensed Hams would take the place of Palo Alto’s MURS city-wide Emergency Services net
  - Could be on repeater that covered the required neighborhoods
  - Could be several Simplex nets reporting to EOC

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Tool for Network Planning

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Short Range VHF/UHF Radio Propagation Modeling

- We are going to talk about a free modeling tool called Radio Mobile
- Capable of pt-pt path loss, signal margin estimating & coverage plotting
- Utilizing actual terrain databases
- Can compute and plot station and repeater coverage areas
- Find best sites for EMCOM communicators, evaluate routes
- Today Based on Some Club Members Station Details:
  - exact geographic coordinates [Lat, Long (prefer decimal degrees), MSL Altitude,
  - Antenna Height and Gain and Cable + Losses
  - Radio power and Rcvr sensitivity
  - Channel Freq (VHF, UHF)
  - We will demonstrate use of the model to predict your ability to another station on simplex
  - We will demonstrate use of the model to plot your station's simplex coverage
  - We will plot some estimates of Repeater Coverages (to your HT, Mobile, Hope QTH)
- We will try to have some fun doing so

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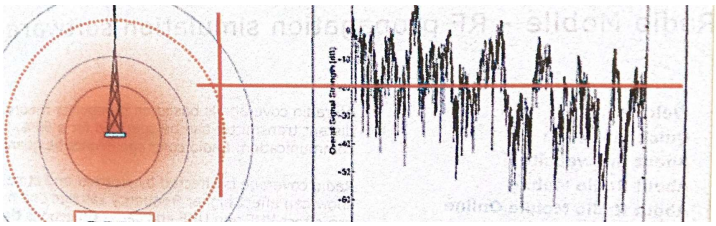
As an Aside: Communication is a stochastic process



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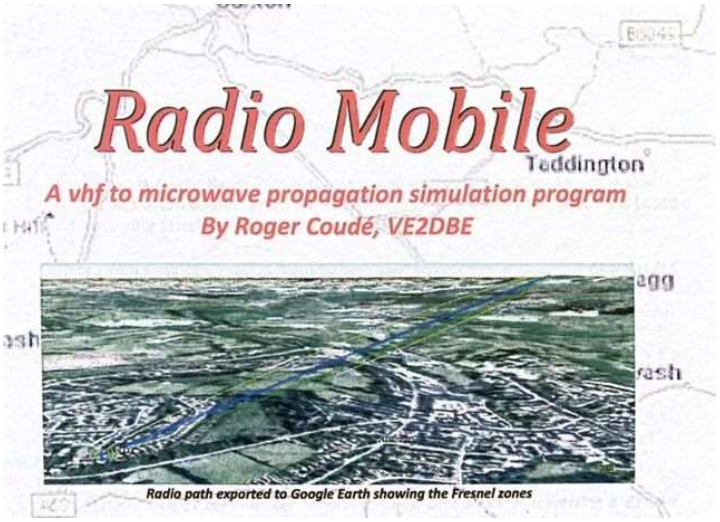
The Software



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Lots of Help Available

- http://www.ve2dbe.com/english1.html
- **Related links**
- Radio Mobile Yahoo Group
- Radio Mobile and Linux
- Greg Bur alternative source of documentation
- Ian G3TVU Quick Start guide and installer
- Remko (PE1MEW) alternative source of documentation
- Program operating guide by Brian J. Henderson, P. Eng. VE6ZS
- IT +46 documentation project
- G8GTZ how to get started guide
- Shuttle Radar Topography Mission web page
- ITM radio progation model
- International Telecommunication Union - Calculation of Effective antenna heights

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Now Let's Try It Out……

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RMWENG.exe and The Online Version

- We will ATTEMPT to demonstrate the online version
- If Time Permits We Can Play With The Local Version
- Link to online ver.

http://www.ve2dbe.com/english1.html

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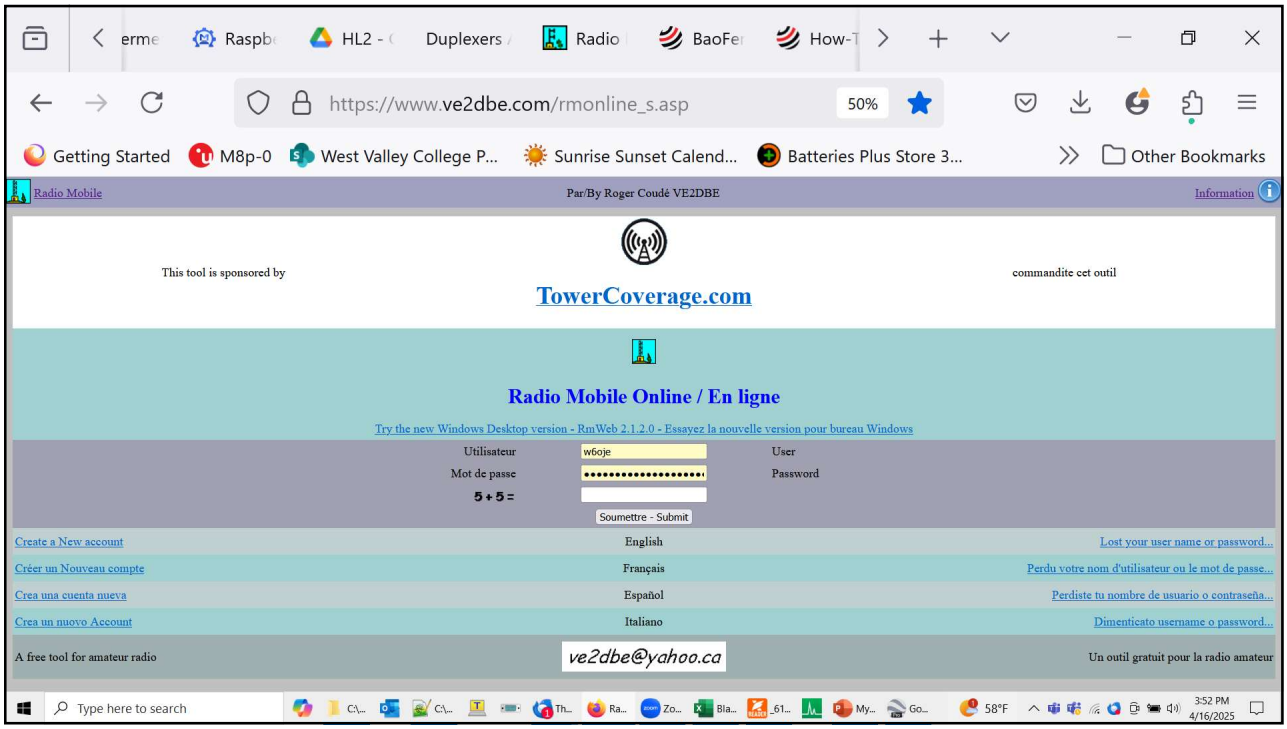

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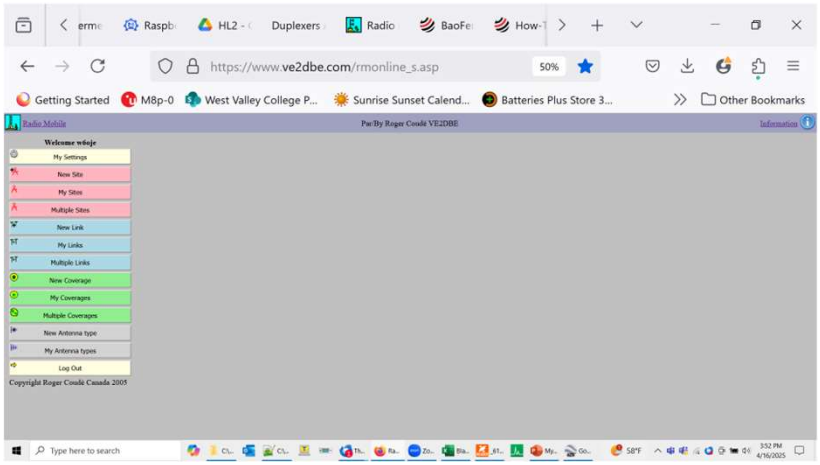
Main Menu



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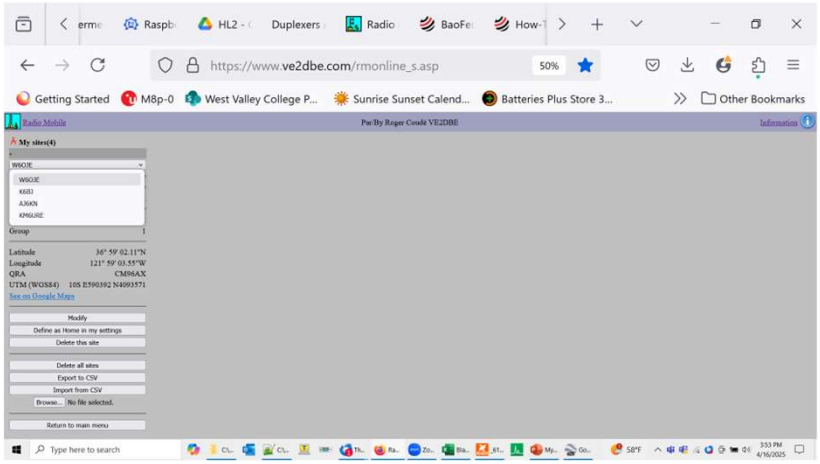
My sites



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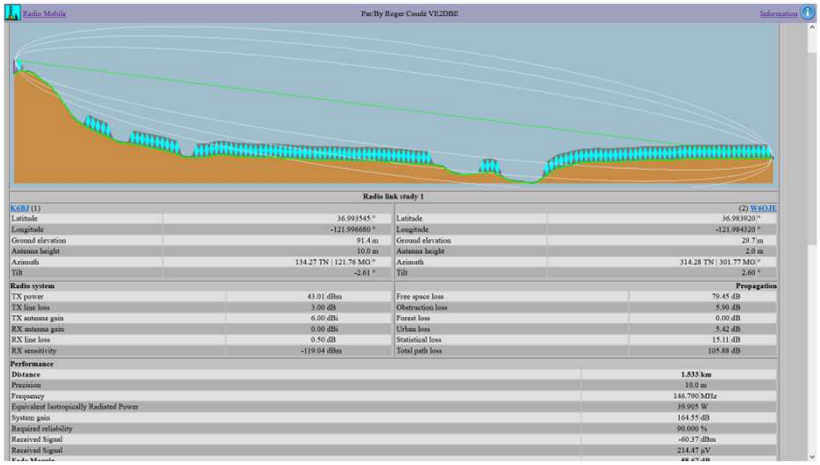
One of “my links”



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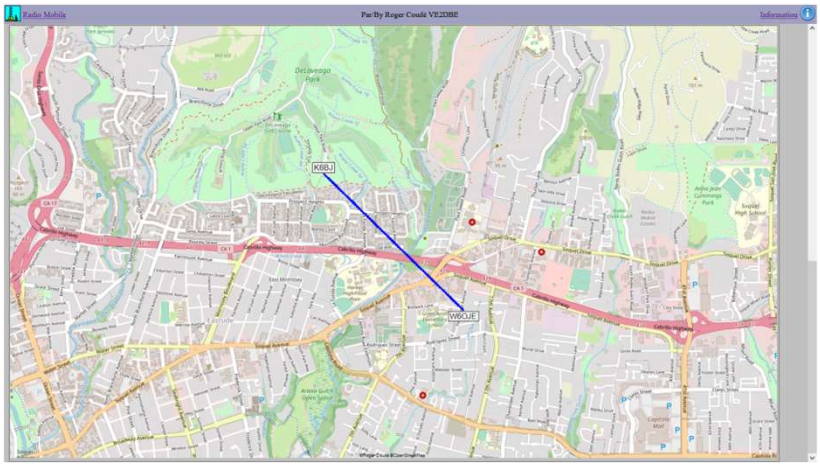
Link depiction on map



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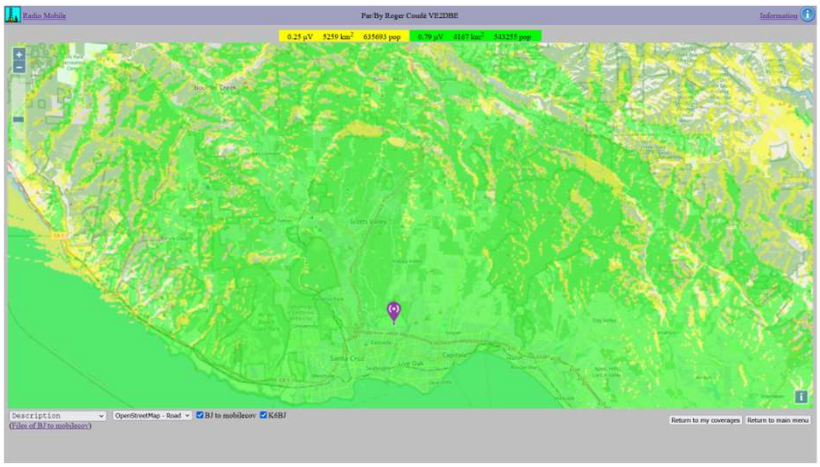
Example Coverage Plot



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Back to Main Menu for Logout

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RMWENG.exe

- The downloaded .exe version on own PC can do much more
- But there is a steep learning curve

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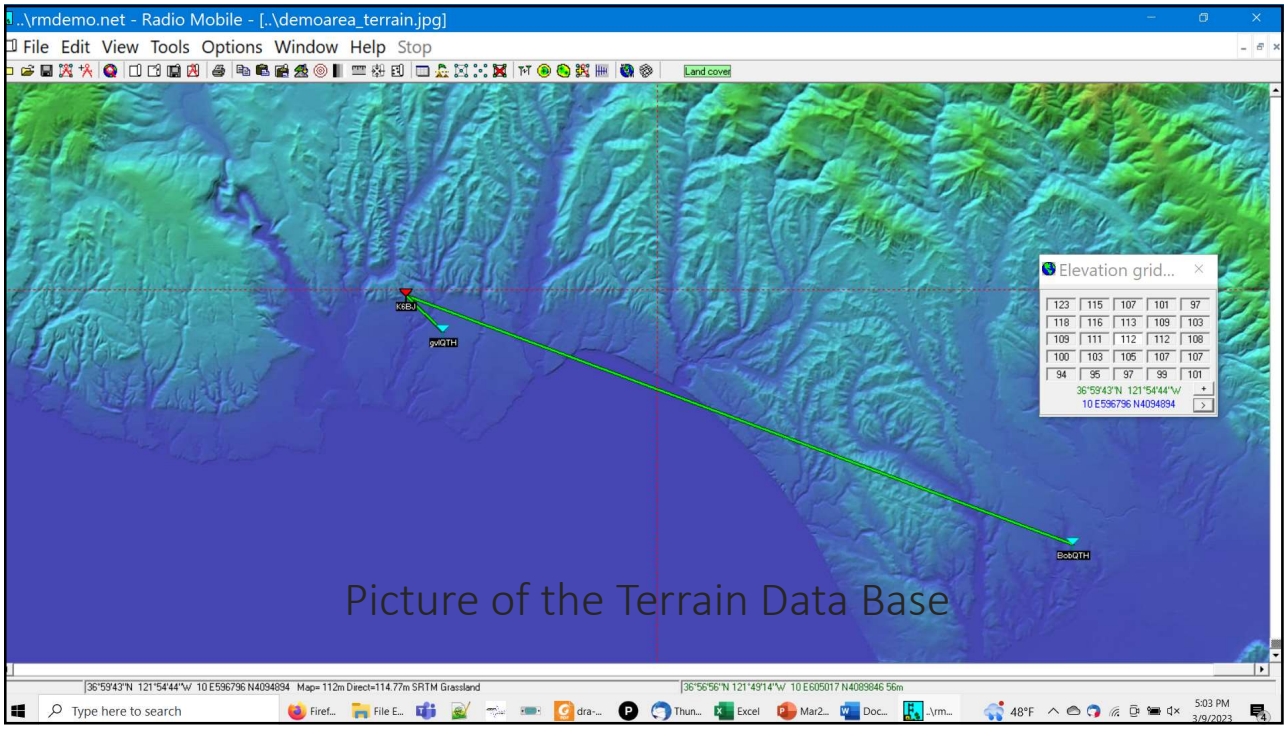

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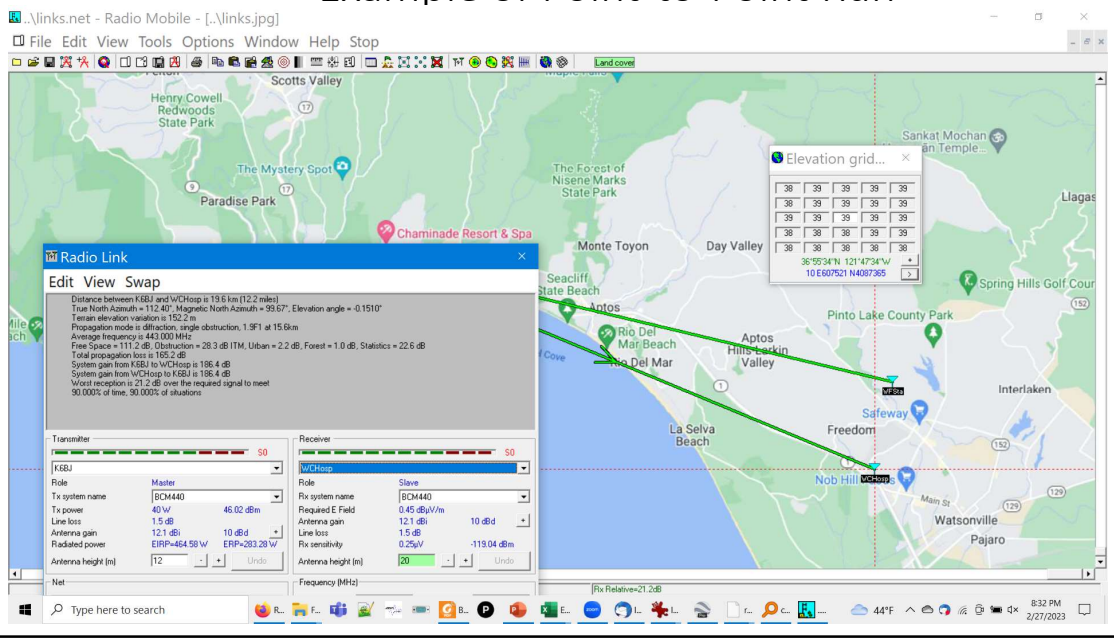
Example of Point-to-Point Run



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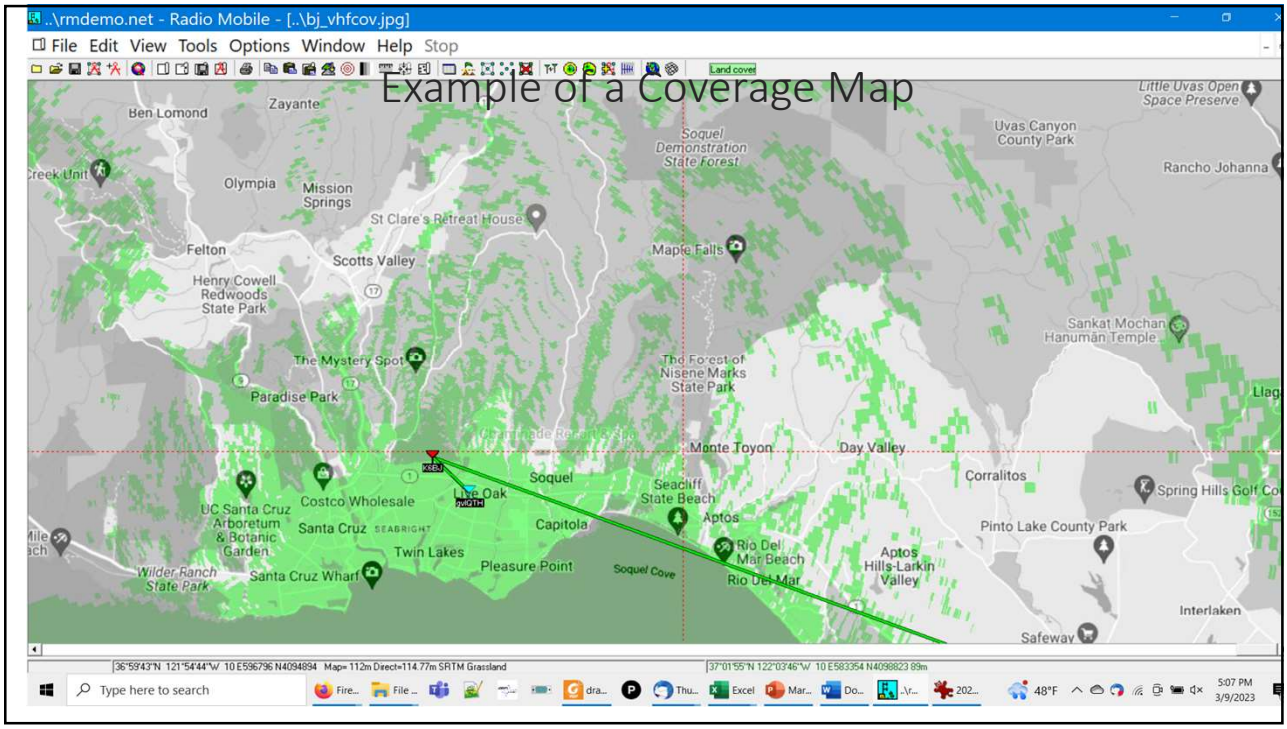
..\rmdemo.net - Radio Mobile - [..\bj_vhfcov.jpg]
File Edit View Tools Options Window Help Stop
Land cover
Example of a Coverage Map
Ben Lomond
Zayante
Olympia
Mission Springs
St Clare's Retreat House
Felton
Scotts Valley
Henry Cowell Redwoods State Park
The Mystery Spot
Paradise Park
Soquel Demonstration State Forest
Maple Falls
The Forest of Nisene Marks State Park
Uvas Canyon County Park
Little Uvas Open Space Preserve
Rancho Johanna
Sankat Mochan Hanumān Temple
Monte Toyon
Day Valley
Corralitos
Spring Hills Golf Co
Pinto Lake County Park
Aptos Hills-Larkin Valley
Interlaken
Safeway
Soquel
Live Oak
Seacliff State Beach
Aptos
Capitola
Rio Del Mar Beach
Rio Del Mar
Costco Wholesale
UC Santa Cruz Arboretum & Botanic Garden
Santa Cruz
Twin Lakes
Pleasure Point
Soquel Cove
Santa Cruz Wharf
Wilder Ranch State Park
Type here to search
48°F
5:07 PM
3/9/2023

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QUESTIONS?

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BACKUP and EXTRA SLIDES

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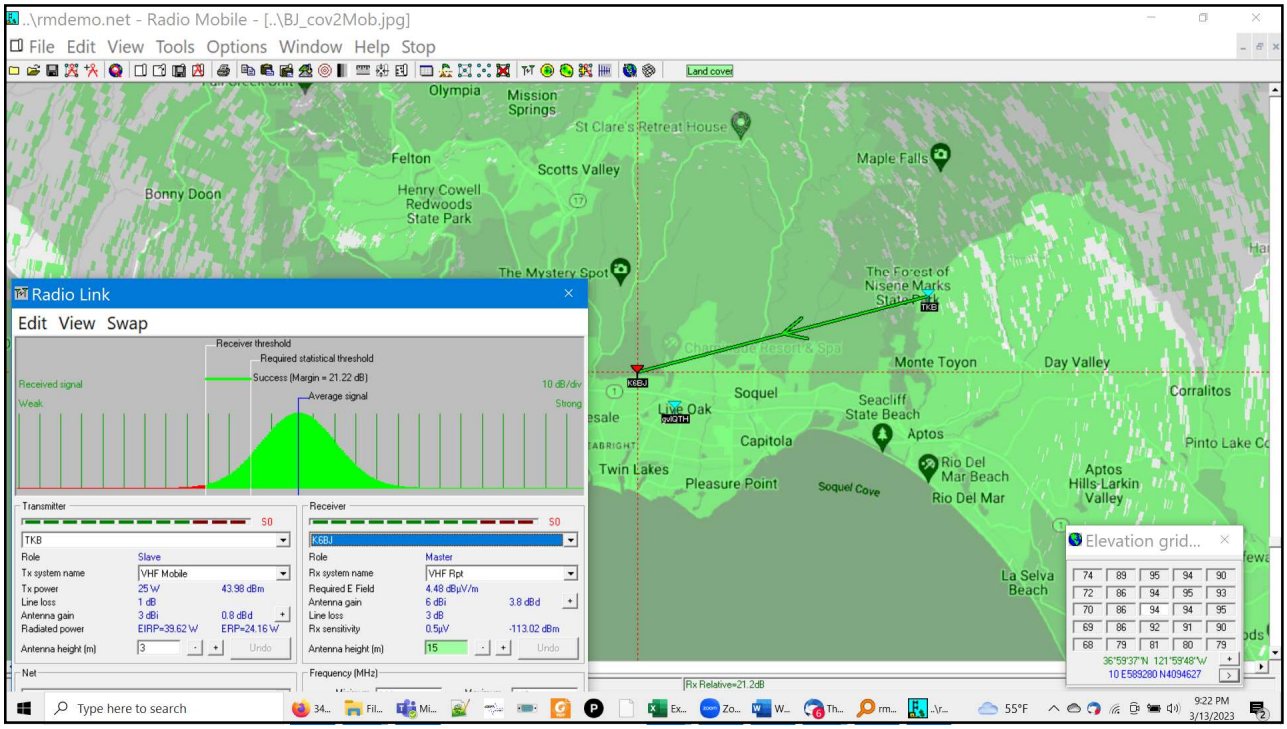

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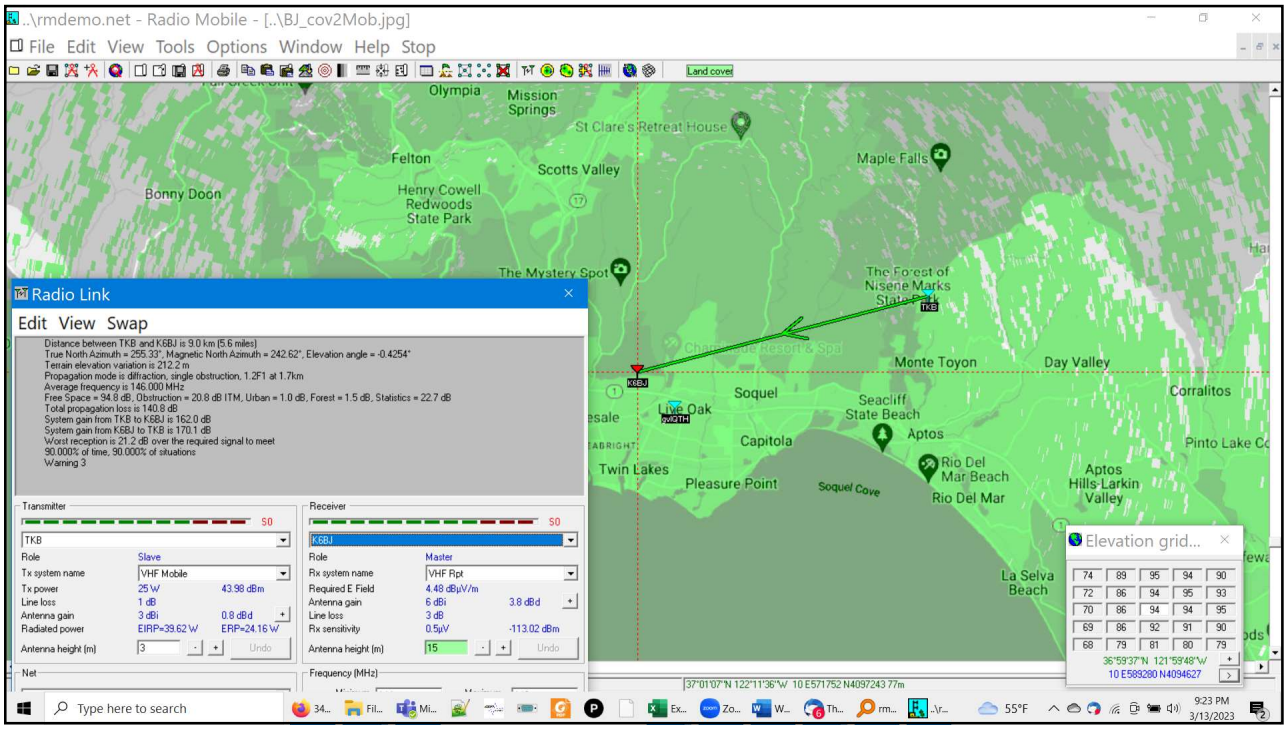
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Monte Toyon
Day Valley
Corralitos
Soquel
Seacliff State Beach
Live Oak
Capitola
Aptos
Pinto Lake Co
Twin Lakes
Pleasure Point
Soquel Cove
Rio Del Mar Beach
Rio Del Mar
Aptos Hills-Larkin Valley
La Selva Beach
Radio Link
Edit View Swap
Distance between TKB and K6BJ is 9.0 km (5.6 miles)
True North Azimuth = 255.33°, Magnetic North Azimuth = 242.62°, Elevation angle = -0.4254°
Terrain elevation variation is 212.2 m
Propagation mode is diffraction, single obstruction, 1.2F1 at 1.7km
Average frequency is 146.000 MHz
Free Space = 94.8 dB, Obstruction = 20.8 dB ITM, Urban = 1.0 dB, Forest = 1.5 dB, Statistics = 22.7 dB
Total propagation loss is 140.8 dB
System gain from TKB to K6BJ is 162.0 dB
System gain from K6BJ to TKB is 170.1 dB
Worst reception is 21.2 dB over the required signal to meet
90.000% of time, 90.000% of situations
Warning 3
Transmitter
S0
TKB
Role Slave
Tx system name VHF Mobile
Tx power 25 W 43.98 dBm
Line loss 1 dB
Antenna gain 3 dBi 0.8 dBd
Radiated power EIRP=39.62 W ERP=24.16 W
Antenna height (m) 3
Undo
Receiver
S0
K6BJ
Role Master
Rx system name VHF Rpt
Required E Field 4.48 dBµV/m
Antenna gain 6 dBi 3.8 dBd
Line loss 3 dB
Rx sensitivity 0.5µV -113.02 dBm
Antenna height (m) 15
Undo
Net
Frequency (MHz)
Elevation grid...
74 89 95 94 90
72 86 94 95 93
70 86 94 94 95
69 86 92 91 90
68 79 81 80 79
36°59'37"N 121°59'48"W
10 E589280 N4094627
37°01'07"N 122°11'36"W 10 E571752 N4097243 77m
Type here to search
55°F
9:23 PM
3/13/2023

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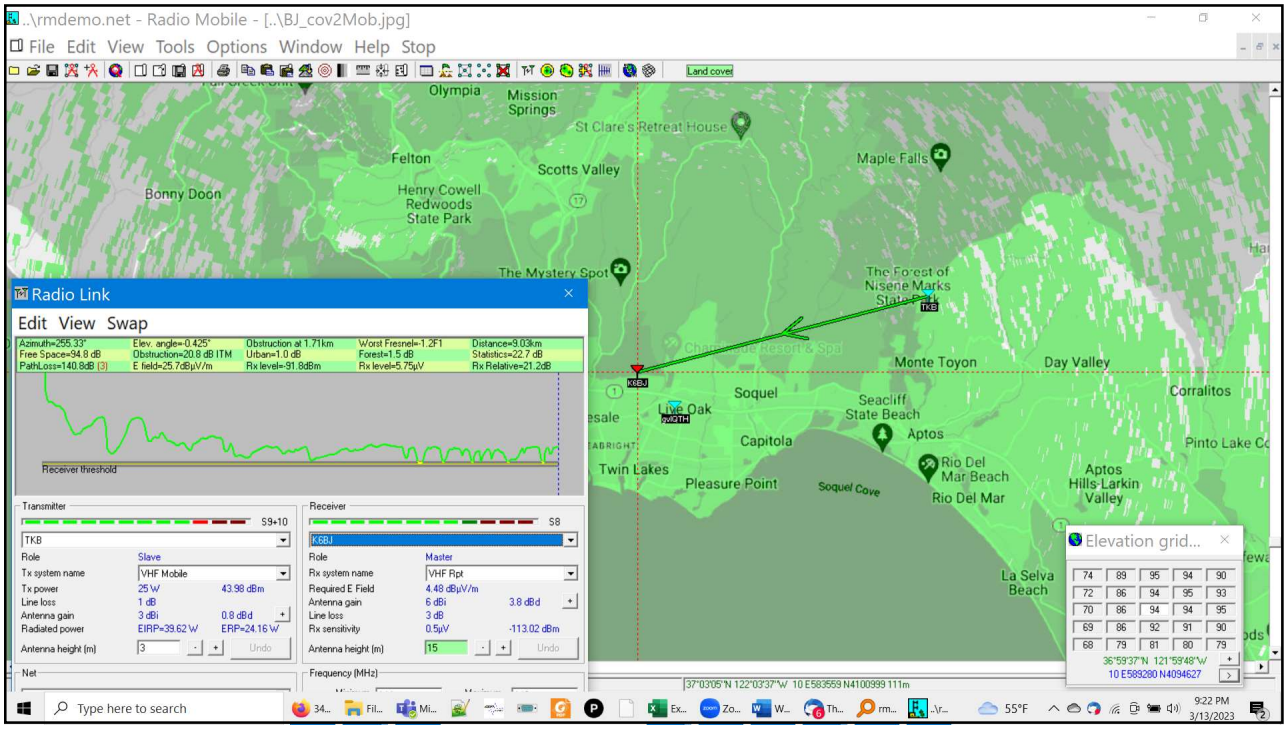
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Live Oak
Capitola
Aptos
Pinto Lake Co
Twin Lakes
Pleasure Point
Soquel Cove
Rio Del Mar Beach
Rio Del Mar
Aptos Hills-Larkin Valley
La Selva Beach
Radio Link
Edit View Swap
Azimuth=255.33° Elev. angle=-0.425° Obstruction at 1.71km Worst Fresnel=-1.2F1 Distance=9.03km
Free Space=94.8 dB Obstruction=20.8 dB ITM Urban=1.0 dB Forest=1.5 dB Statistics=22.7 dB
PathLoss=140.8dB [3] E field=25.7dBµV/m Rx level=-91.8dBm Rx level=5.75µV Rx Relative=21.2dB
Receiver threshold
Transmitter
S9+10
TKB
Role Slave
Tx system name VHF Mobile
Tx power 25 W 43.98 dBm
Line loss 1 dB
Antenna gain 3 dBi 0.8 dBd
Radiated power EIRP=39.62 W ERP=24.16 W
Antenna height (m) 3
Undo
Receiver
S8
K6BJ
Role Master
Rx system name VHF Rpt
Required E Field 4.48 dBµV/m
Antenna gain 6 dBi 3.8 dBd
Line loss 3 dB
Rx sensitivity 0.5µV -113.02 dBm
Antenna height (m) 15
Undo
Net
Frequency (MHz)
Elevation grid...
74 89 95 94 90
72 86 94 95 93
70 86 94 94 95
69 86 92 91 90
68 79 81 80 79
36°59'37"N 121°59'48"W
10 E589280 N4094627
37°03'05"N 122°03'37"W 10 E583559 N4100999 111m
Type here to search
55°F
9:22 PM
3/13/2023

36

THE END

37

Emergency Communications Experiences

Mike Puchol - K9VF

WHAT'S YOUR STORY?

R

CARMICHAEL
CARMICHAEL
H772 NPU
SOUTHEND AIRPORT
Airports UK

MOUNTAIN RESCUE

PUCHOL

0.90.70
bombers
ACTROS
8586 GKJ
112
emergències
bombers
112
emergències
bombers

NEVER
STOP
LEARNING

DEF
ABC
GHI
4
1
LKJ
5
MNO
6
PRS
7
0
8
TUV
9
WXY

911
VOLUME
CHANNEL
SCAN
MON
POWER

11:30
My Status
En Route
East Zone
Patrol 1
Scan Lists
Contacts
More
Clark, Robert
On my way
New Conversation
All Messages
MOTOROLA

POWER
MON
VOX
BUSY
USB
14.234.46
NB
RX
VFO-A
TX
PROC
NTR
AGC
ANTENNA
AF GAIN
RF GAIN
A/B
NARROW
SSB
CW
AM
FM
DATA
STEP